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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/623,115	07/18/2003	John Joseph M. Carrasco	OVR/018-02	4451

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EXAMINER

LEROUX, ETIENNE PIERRE

ART UNIT PAPER NUMBER

2161

DATE MAILED: 02/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/623,115	Applicant(s) CARRASCO ET AL.	
	Examiner Etienne P. LeRoux	Art Unit 2161	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-121 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-22, 31-42, 49-62, 70-75 and 81-121 is/are rejected.
- 7) ☐ Claim(s) 23-30, 43-48, 63-69 and 76-80 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>7/2003</u> . | 6) <input type="checkbox"/> Other: _____ |

Claim Status:

Claims 1-121 are pending. Claims 1-22, 31-42, 49-62, 70-75 and 81-121 are rejected; claims 23-30, 43-48, 63-69 and 76-80 are objected to.

Claim Objection

Claim 23-30, 43-48, 63-69 and 76-80 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Claims 23, 42, 62, 75, 107 and 117 are allowable for including wherein clustering positively correlating content providers comprises: evaluating pairs of content providers having positive correlation score in descending order of correlation score; assigning content providers to clusters after each evaluation of a pair content providers, wherein assigning comprises: creating a new cluster comprising each content provider of a pair of content providers if neither content provider is assigned to a cluster and assigning each content provider of a pair of content providers to the new cluster; and assigning an unassigned content provider of a partially assigned pair of content providers to a cluster comprising a previously assigned content provider of the partially assigned pair of content providers if only one of the content providers of a pair of content providers was previously assigned to a cluster.

Claims 24-30 and claims 43-48 and claims 63-69 and 76-80 are allowable for being dependent from an allowable base claim.

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Claims 108-111 and 118-120 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Above claims have not been further treated on the merits.

Abstract of the Disclosure

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Instant abstract comprises more than 150 words.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-30 and 49 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not

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described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 1 recites “identifying the search query as ambiguous.” The specification does not contain a clear and concise description of the process of identification such that a skilled artisan can make and use present invention. Paragraph 1 of the specification states “Ambiguity in the context of search exists when a number of possible interpretations may exist for a given query.” The specification does not describe the process of defining interpretations which may be applied to a given query. Examiner notes a common dictionary¹ definition of “interpret” is *to explain the meaning of, make understandable*. In particular, the specification does not describe how the meaning of a search term is described. Furthermore, examiner maintains that explaining the meaning of something is within the capability of a human being and not of a machine.

Claim 1 recites “clustering a plurality of search results for the search query into interpretation clusters.” The specification does not contain a clear and concise description of the process of creating an interpretation such that a skilled artisan can make and use present invention.

Claim 49 recites “wherein identifying interpretation clusters comprises evaluating redundant term vectors.” The specification does not contain a clear and concise description of the process of creating above claim limitation such that a skilled artisan can make and use present invention.

¹ Webster’s New World College Dictionary, Fourth Edition.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-11, 31, 32, 36, 52, 54-60, 86-88 and 91 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 1 recites interpretation clusters. An interpretation cluster is an abstract idea and is not patentable because a human mind could interpret a cluster.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2-6, 9 and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by Pub No US 2004/0019588 issued to Doganata et al; (hereafter Doganata).

Claim 1 and 10:

Doganata discloses receiving a search query; identifying the search query as ambiguous [search query must be extended, paragraph 11] ; clustering a plurality of search results for the search query into interpretation clusters; and generating a search results list based on the interpretation clusters [Abstract, paragraph 11]

Claim 2:

Doganata discloses wherein generating the search results list further comprises ordering search results based on the interpretation clusters [top search results, paragraph 12]

Claim 3:

Doganata discloses wherein identifying the search query as ambiguous comprises identifying at least one of: (a) an inherent ambiguity in the search query; (b) an under specified search query; or (c) a sub-phrase match for the search query [paragraph 11].

Claim 4:

Doganata discloses wherein identifying the search query as ambiguous comprises identifying an absence of an exact match search result with the search query [paragraph 11]

Claim 6:

Doganata discloses wherein identifying the search query as ambiguous comprises identifying absence of an exact match search result with the search query [paragraph 11].

Claim 9:

Doganata discloses wherein generating the search results list comprises interleaving search results from different interpretation clusters [paragraph 55].

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 5, 7, 8 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Doganata in view of Pub No US 2005/0289120 issued to Soulanille et al (hereafter Soulanille).

Claims 5, 7, 8 and 11:

Doganata discloses the essentials elements of claims 1 and 4 as noted above but does not disclose wherein clustering the plurality of search results associated with the search query comprises using at least one of: (a) bidded phrases, or (b) clickthrough data. Soulanille discloses wherein clustering the plurality of search results associated with the search query comprises using at least one of: (a) bidded phrases, or (b) clickthrough data. [Abstract]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Doganata to include wherein clustering the plurality of search results associated with the search query

comprises using at least one of: (a) bidden phrases, or (b) clickthrough data. as taught by Soulanille for the purpose of providing an advertiser with information regarding display of search results.

Claims 12-22, 31-41, 49-61, 70-74, 81-106, 112-116 and 121 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Doganata and Soulanille and further in view of Pub No US 2003/0055816 issued to Paine et al (hereafter Paine).

Claim 12, 17 and 19-22:

The combination of Doganata and Soulanille discloses the elements of claims 1, 10 and 11 as noted above but does not disclose wherein clustering comprises calculating Pearson's correlation coefficients. Paine discloses wherein clustering comprises calculating Pearson's correlation coefficients [Figs 15-17 and paragraph 102]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify above combination of references to include wherein clustering comprises calculating Pearson's correlation coefficients as taught by Paine for the purpose of evaluating the similarity of the clusters by means of a well-known statistical measure.

Claim 13 and 15:

The combination of Doganata, Soulanille and Paine discloses the elements of claims 1 and 10-12 as noted above and furthermore discloses wherein clustering comprises calculating an occurrence matrix [Doganata, paragraph 11]

Claim 14 and 16:

The combination of Doganata, Soulanille and Paine discloses the elements of claims 1 and 10-13 as noted above and furthermore discloses wherein identifying a plurality of search results comprises identifying bidded search terms [Soulanille, Abstract].

Claim 18:

The combination of Doganata, Soulanille and Paine discloses the elements of claims 1 and 17 as noted above and furthermore discloses wherein clustering comprises: identifying content providers corresponding to the plurality of search results; retrieving bidded search terms associated with each identified content provider; determining correlations between the identified content providers based on the retrieved bidded search terms; and clustering positively correlating content providers based on the correlations [Doganata, paragraphs 11-14].

Claims 31-41 and 52-61 and 70-74, 81-106, 112-116 and 121:

Examiner maintains above claims are rejectable over the above combination of references as noted above.

Claim 49:

The combination of Doganata, Soulanille and Paine discloses the elements of claim 31 as noted above and furthermore discloses wherein identifying interpretation clusters comprises evaluating redundant term vectors [Doganata, paragraph 12].

Claim 50:

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The combination of Doganata, Soulanille and Paine discloses the elements of claim 31 as noted above and furthermore discloses wherein identifying interpretation clusters comprises defining a cluster signature based on an evaluation of probabilities of content providers being members of clusters [Doganata, paragraph 12, DCM]

Claim 51:

The combination of Doganata, Soulanille and Paine discloses the elements of claim 31 as noted above and furthermore discloses providing search results capable of review by a searcher wherein the searcher is an automated process representing a user's interest [Doganata, Abstract] .

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Etienne P. LeRoux whose telephone number is (571) 272-4022. The examiner can normally be reached Monday through Friday between 8:00 am and 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic can be reached on (571) 272-4023. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Etienne LeRoux

February 16, 2006

A handwritten signature in black ink, appearing to read "Etienne LeRoux", is written diagonally over the typed name and date.